

Product datasheet for **RC206499**

IFIT5 (NM_012420) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IFIT5 (NM_012420) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IFIT5
Synonyms:	ISG58; P58; RI58
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC206499 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGTGAATTCGTAAGGACACCTTGAAGGCCATTCTGTTGGAGTTAGAATGTCATTTTACATGGAATT
 TACTTAAGGAAGACATTGATCTGTTTGAAGTAGAAGATACAATTGGGCAACAGCTTGAATTTCTTACCAC
 AAAATCTAGACTTGTCTTTATAACCTATTGGCCTATGTGAAACACCTAAAAGGCCAAAAATAAGACGCC
 CTTGAGTGCTTGGAAACAAGCAGAAGAAATAATCCAGCAAGAACACTCAGACAAAGAAGAAGTACGAAGCC
 TGGTCACTTGGGAAACTATGCCTGGGTGATTATCACATGGACCAGCTTGAAGAAGCTCAGAAGTATAC
 AGGTAAGATAGGGAATGTCTGTAAGAAATTGTCCAGTCTTCTAACTACAAGTTGGAGTGTCTGAGACT
 GACTGTGAGAAAGGCTGGGCACTCTTGAATTTGGAGGAAAGTATTATCAAAAGGCTAAAGCGGCTTTTG
 AGAAGGCTCTGGAAGTGGAGCCTGACAATCCAGAATTTAACATCGGCTATGCTATCACAGTGTATCGGCT
 GGATGATTCTGATAGAGAAGGTCTGTAAGAGCTTTTCTCTGGGCTTTGAGAAAGGCTGTTACCTG
 AACCCAGATAACAGCTATATTAAGGTTTTCTGGCACTGAAGCTTCAAGATGTACATGCAGAAGCTGAAG
 GGGAAAAGTATATTGAAGAAATCCTGGACCAATATCATCCAGCCTTACGTCTTCGTTATGCAGCCAA
 GTTCTATAGGAGAAAAATTCTTGAACAAAGCTCTCGAATTTTAAAAAGGCTTGGAGGTGACACCA
 ACTTCTTCTTCTGCATCACCAGATGGGACTTGTCTACAGGACCAAAATGATCCAAATCAAGAAGGCCA
 CACACAACAGACCTAAAGGAAAGGATAAACTAAAGGTTGATGAGCTGATTTATCTGCTATATTTTCATT
 CAAAGCAGCCATGGAACGAGACTCTATGTTTGCATTTGCCTACACAGACCTGGCCAACATGTATGCTGAA
 GGAGGCCAGTATAGCAATGCTGAGGACATTTCCGGAAGCTCTTCGTCTGGAGAACATAACCGATGATC
 ACAAACTCAGATCCATTACCACTATGGCCGCTTTCAGGAATTTACCGTAAATCAGAAAATACTGCCAT
 CCATCATTATTTAGAAGCCTTAAAGGTCAAAGACAGATACCCCTTCGCACCAAACTGACAAGTGTCTG
 AAGAAATTGTCTACCAAGAGACTTTGTCAATGCTTTAGATGTGCAGAGTTTAAGTGCCCTAGGTTTG
 TTTACAAGCTGGAAGGAGAAAAGAGGCAAGCTGCTGAGTACTATGAGAAGGCACAAAAGATAGATCCAGA
 AAATGCAGAATTCCTGACTGCTCTGTGAGCTCCGACTTTCCATT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206499 protein sequence
 Red=Cloning site Green=Tags(s)

MSEIRKDTLKAILLELECHFTWNLLKEDIDLFEVEDTIGQQLFTTKSRLALYNLLAYVKHLKGQNKDA
 LECLEQAEEIIQQEHSDKEEVRLVWGNVYAWVYHMDQLEEAQKYTGKIGNVCKKLSSPSNYKLECPET
 DCEKGWALLKFGGKYQKAKAAFEKALEVEPDNPEFNIGYAITVYRLDSDREGSVKSFSLGPLRKAVTL
 NPDNSYIKVFLALKLQDVHAEAEGEKYIEEILDQISSQPYVLRVYAAKFYRRKNSWNKALELLKALEVTP
 TSSFLHHQMGLCYRAQMIQIKKATHNRPKGDKLKVDELISSAIFHFKAAMERDSMFAFAYDLANMYAE
 GGQYSNAEDIFRKALRLNITDDHKHQIHYHYGRFQEFHRKSENTAIHHYLEALKVKDRSPLRKLTSAL
 KKLSTKRLCHNALDVQSLSALGFVYKLEGEKRQAAEYKEAQAQKIDPENAEFLTALCELRLSI

TRTRPLE**QKL**ISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6520_f05.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_012420

ORF Size: 1446 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_012420.1](#), [NP_036552.1](#)

RefSeq Size: 4034 bp

RefSeq ORF: 1449 bp

Locus ID: 24138

UniProt ID: [Q13325](#)

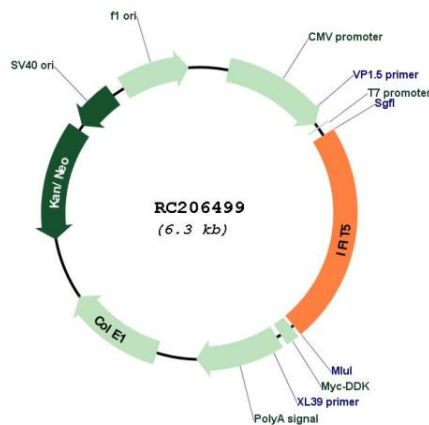
Cytogenetics: 10q23.31

Domains: TPR

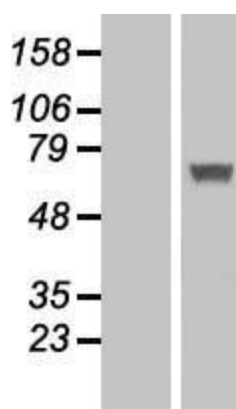
MW: 55.8 kDa

Gene Summary: Interferon-induced RNA-binding protein involved in the human innate immune response. Has a broad and adaptable RNA structure recognition important for RNA recognition specificity in antiviral defense. Binds precursor and processed tRNAs as well as poly-U-tailed tRNA fragments (PubMed:25092312, PubMed:23317505, PubMed:23774268). Specifically binds single-stranded RNA bearing a 5'-triphosphate group (PPP-RNA), thereby acting as a sensor of viral single-stranded RNAs. Single-stranded PPP-RNAs, which lack 2'-O-methylation of the 5' cap and bear a 5'-triphosphate group instead, are specific from viruses, providing a molecular signature to distinguish between self and non-self mRNAs by the host during viral infection. Directly binds PPP-RNA in a non-sequence-specific manner (PubMed:23334420). Also recognizes and selectively binds AT-rich dsDNA (PubMed:23774268). Additionally, as a mediator in innate immunity, regulates positively IKK-NFκB signaling by synergizing the recruitment of IKK to MAP3K7 (PubMed:26334375).[UniProtKB/Swiss-Prot Function]

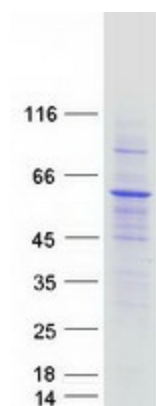
Product images:



Circular map for RC206499



Western blot validation of overexpression lysate (Cat# [LY415768]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206499 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IFIT5 protein (Cat# [TP306499]). The protein was produced from HEK293T cells transfected with IFIT5 cDNA clone (Cat# RC206499) using MegaTran 2.0 (Cat# [TT210002]).